

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
15 September 2005 (15.09.2005)

PCT

(10) International Publication Number  
**WO 2005/085578 A2**

(51) International Patent Classification<sup>7</sup>: **E06B 9/00**

(21) International Application Number:  
PCT/IB2005/000482

(22) International Filing Date: 25 February 2005 (25.02.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
10/786,351 25 February 2004 (25.02.2004) US

(71) Applicant (for all designated States except US): **SOMFY SAS** [FR/FR]; 50, Avenue du Nouveau Monde, F-74300 Cluses (FR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **CAVAREC, Pierre-Emmanuel** [FR/US]; 10808 Scripps Ranch Blvd. #105,

San Diego, CA 92131 (US). **WALKER, Winston, Glenn** [US/US]; 8230 S. Seabrook Lane, Littleton, CO 80120 (US).

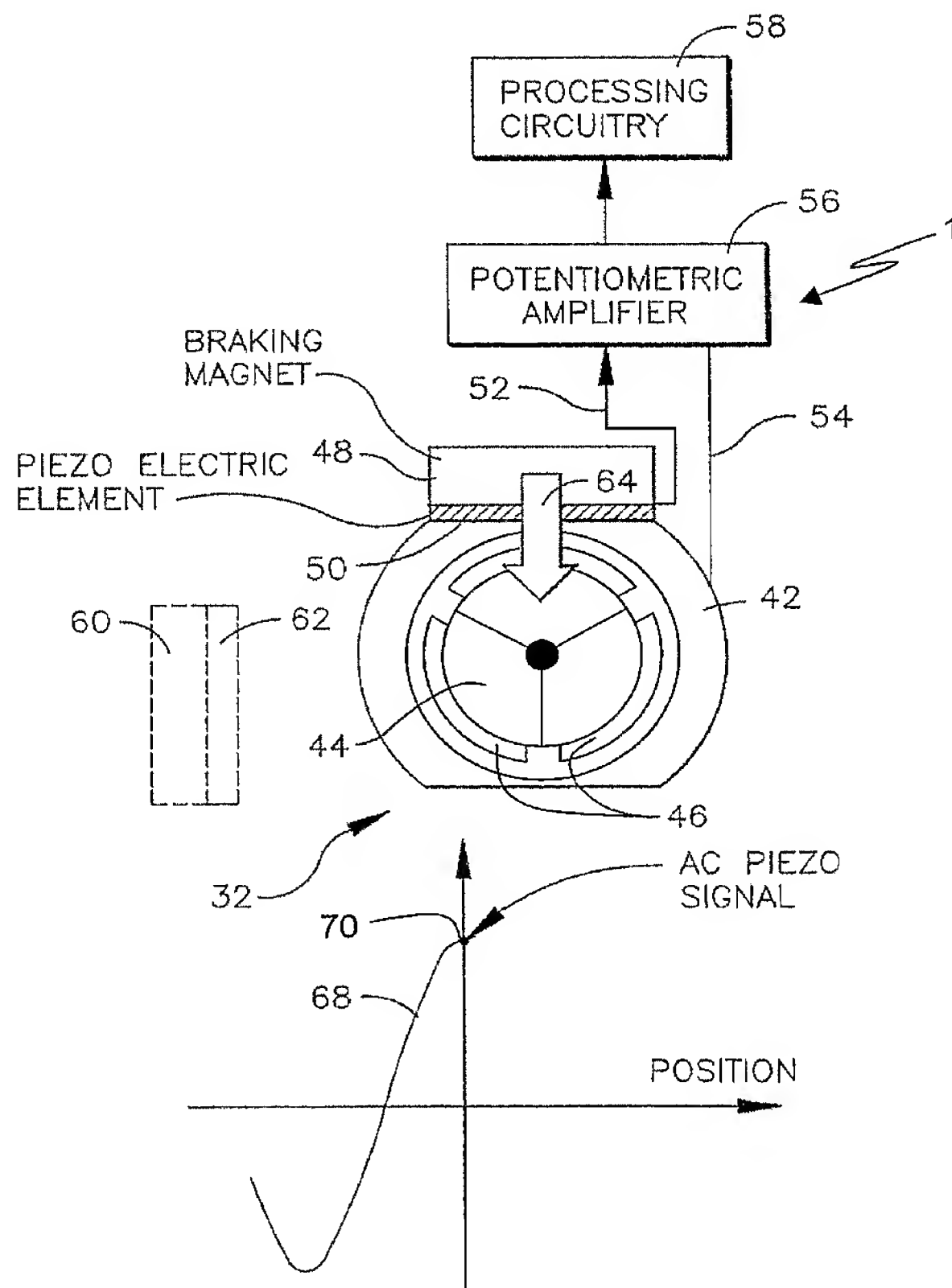
(74) Agents: **GROSFILLIER, Philippe** et al.; C/O BUGNION S.A., Case Postale 375, CH-1211 Genève 12 (CH).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: **PIEZO-BASED ENCODER WITH MAGNETIC BRAKE FOR POWERED WINDOW COVERING**



(57) Abstract: The device (1) comprises a frame (42) comprising a static magnetic pole (48), a movable member (44) relatively to the frame (42), the movable member (44) comprising a moving magnetic pole (46), the static magnetic pole (48) and the moving magnetic pole (46) being magnetically coupled in some position of the movable member (44), a piezosensitive element (50) so that the force due to the magnetic coupling between the moving magnetic pole (46) and the static magnetic pole (48) reacts on the piezosensitive element (50), and means (52, 54, 56, 58) for outputting an electric signal from the piezosensitive element (50), the signal being useful in determining the position and/or the speed and/or the direction of the movable member (44).



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

**Published:**

- *without international search report and to be republished upon receipt of that report*